Sect. IX-48

(192) Depart

SERIES.

G.O. No. 743

DATED

[Despatch Abstract.]

PUBLIC WORKS DEPARTMENT.

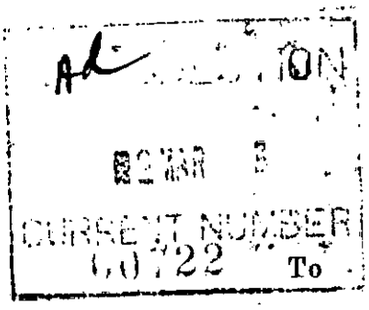
OFFICE OF THE ELECTRICAL INSPECTOR TO THE

GOVERNMENT OF MADRAS,

Chepauk, Madras

Dated 1st March 1923.

From



E.J.B. Greenwood Esq., M.Sc., M.I.E.E., M.I.E.,

ELECTRICAL INSPECTOR TO THE GOVERNMENT OF MADRAS,

To The Secretary to Government,

Public Works Department.

SIR,

With further to my U.O. note 907 dated 22-5-22 I forward a copy of my recent inspection report No. 422 dated 1st March 1923 on the electric installation in the Alipuram Jail, Bellary.

This plant has been poorly engineered, poorly installed and must cause wasteful operation and maintenance. It is not possible to completely set right the plant.

As Government's adviser on electrical matters I would state that it cannot be in Government's best interests for a non-technical department such as the Jail Department, to enter into a non-competitive contract for -- and to supervise the installation or -- electrical plant without an approved specification. The apparent saving in first cost effected by letting the contractor prepare his own specification, and by not providing technical supervision must be very quickly wiped out by excessive maintenance and early renewal.

J.B. Greenwood

1-3-23

Electrical Inspector
to Government.

PUBLIC WORKS DEPARTMENT.

OFFICE OF THE ELECTRICAL INSPECTOR TO THE

GOVERNMENT OF MADRAS,

Chepauk, Madras,

No. 422 Dated 12th March 1923.

From

E.J.B. Greenwood Esq., M.Sc., M.I.E.E., M.I.E.,

ELECTRICAL INSPECTOR TO THE GOVERNMENT OF MADRAS,

To

THE Superintendent,
Alipuram Jail,
Bellary.

Thro.

The Inspector General of Prisons,
Ootacamund.

SIR,

With reference to my inspection on the 13th February 1923 of your electric installation I would invite attention to the following points:-

(1) For long life the battery requires much more careful attention than it at present ~~does not~~ receives

(a) The raw acid specific gravity 1·840 should never be poured into a cell, it should be diluted with distilled water down to the right specific gravity 1·255 and allowed to cool before pouring into a cell. Adding to a cell first the water and then the raw acid is like drinking first the water and then the whisky-- a bad practice. A large (about 8 gallons capacity) mixing tank either of earthenware or lead line should be provided.

but at your request I could obtain them for you;
Rs. 12 each.

(c) There should be a cell testing voltmeter with scale 3-0-3 volts, and having a zero setting device. At your request I would obtain one for you; price about Rs. 80.

(d) It is little use leaving the card of battery instructions on the wall; the battery attendant must carry out those instructions. For example there is an instruction that the level of the electrotype should never be permitted to fall below the level of the plates; on inspection the level of the majority of the 230 cells was below -- some as much as 1½" below -- the level of the plates instead ¼ inch or so above the level of the plates. Such neglect will shorten very seriously the life of the battery. Both halves of the battery should be overcharged once a fortnight and readings of the specific gravity and voltage of every cell should be taken and recorded.

(e) The battery room should be boarded up so as to prevent the undue quantity of dust from being blown into the room and dirt also at the engine end; at the same time ventilators should be provided high up near roof to be opened towards the end of charge to permit the escape of the acid gases, and also four lights provided so that the condition of the cells may be examined.

(f) The cells should be at a more convenient height for ease of inspection and hence long life. The top of the cells should be about 3 ft 6 inches from the ground. I would recommend that a masonry or wooden platform of the requisite height be built and the cells with their wooden stands and insulators re-erected. The services of a battery fitter should be obtained to supervise the moving and re-erection of the cells. This platform should have been provided from the outset; I have never seen a worse installed battery than the one under reference.

(g) The cells should be numbered from 1 up to 230.

(h) I would recommend the provision of a 4 pole switch

mounted on the wall at left side of switchboard for isolating the four battery cables and so, permitting the back of the switchboard to be made dead for cleaning and inspection purposes.

Above the first cell the cable should be provided with a wooden cleat to keep it off the wall.

(2) (a) The field rheostat at the back of the switchboard is a very poor and unsuitable piece of apparatus and if it is not paid for the suppliers may be requested to change it to a proper rheostat properly mounted. This rheostat is mounted on wood because the holes in the switchboard were drilled incorrectly. and further a portion of the resistance is mounted outside the rheostat on the wall at the back.

(b) The voltmeter switch which I understand was made locally to replace the original unsatisfactory switch is obviously unsafe; I nearly lost two fingers in the violent short circuit when I tried to operate it. The subpliers may be requested to provide a new 3 way voltmeter switch.

(c) Now that the 400 volt battery is operated in halves one at a time the main 4 pole battery knife switch may be cut down to become two double pole switches

(3) The dynamo driving belt and the engine fly-wheels and pulley should be guarded as in red in the attached sketch.

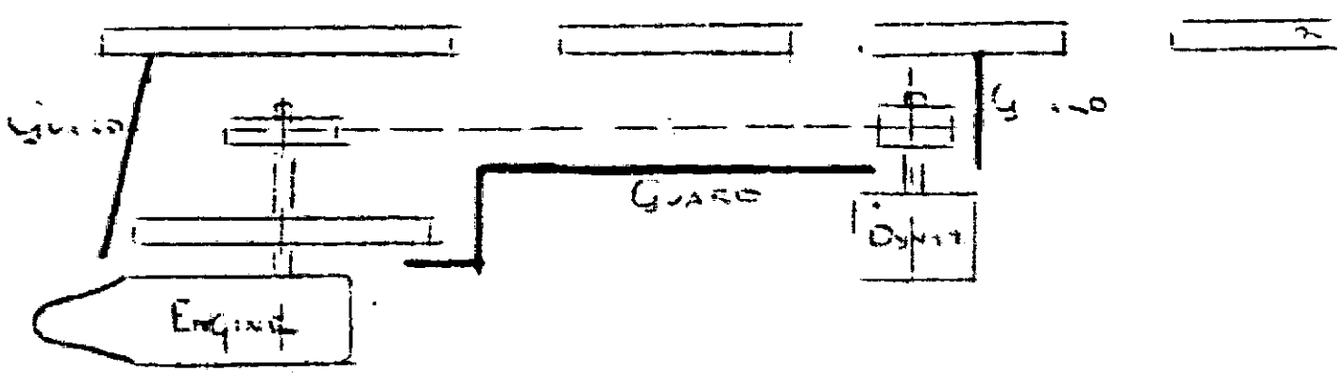
(4) A card of instructions for restoring persons from electric shock should be hung up in the engine room and the working staff trained in those instructions; a suitable card in English and Telugu is obtainable price 12 annas from my office.

and tested by me and the Superintendent advised as to the steps be taken to maintain the plant in good condition.

Sd/- E.J.B. Greenwood

Electrical Inspector
to Government.

Item (3)



Electric installation in the Alipore Jail Bulk

GO 722 Ad From the Sl. Supdt to Govt no 4233 d 1-3-23

DS.

Submitted

The letter may be sent to the Law (General) Dept. for perusal

Thro. S. [illegible]

A.S.

13-3

12. MAR-1923

DEPARTMENT

20-3-23

C.T.N 16/3

Law (General) Dept.

Pw no 6 no

722 Ad-1

A.S.

CURRENT NO. 1625 LAW GENERAL C

The file may first go to the D.G prisons H.Q. for remarks.

RK

20-3-23

20.

Law (General) no 1645 C-1

21.3.23

INSPECTOR-GENERAL OF PRISONS 25 MAR 23 MADRAS

Office of the Inspector-General of Prisons,
Ootacamund, Dated the 1st May 1923.

GOVERNMENT, NO. 2340
LAW (GENERAL) C

A copy of letter No. 933/J, dated the 12th April from the Superintendent, Alipuram Jail, dealing with the several points referred to in the Electrical Inspector's letter No. 422, dated the 1st March 1923, is enclosed for information, and I agree with the Superintendent in the two instances mentioned in paras 1 and VIII.

No.G/ 311

MAY 1923

J M Cameron

Lieut-Col, I. M. S.,
Inspector-General of Prisons.

To,

The Secretary to Government,
Law (General) Department,
Fort St. George, Madras.

Law (Genl) Department

RLK
7/5/23

Submitted

The replies of the Supt. Alipuram Jail to the various points noticed by the Electrical Inspector are at pages 3-4 ante. The file may now be sent to the Electrical Inspector for remarks if any, after the 9 days fixed in this memo dated 12-5-23. Jail, could have replied to the El. Inspector vide reference to this letter at

OFFICE OF THE ELECTRICAL INSPECTOR TO THE GOVT. OF MADRAS
G.O.R. No. 1217
25 MAY 1923

Memo 722 dt 23 [illegible]

The Superintendent, Alipuram Jail has not replied to me to the points of my report 422 dated 1-3-1923; he wrote however for the instruction cards referred to in item 4 of my report.

The Superintendent's replies vide items 1(a), (c) (e) (i) of his J/933 dated 12-4-1923 and the condition of things referred to in my 2(a) (b) and 3 prove that the Superintendent has little practical knowledge of electrical plant and its working and yet from para VIII of his letter he appears quite satisfied with his 'personal supervision and the working of the plant which he states is 'thoroughly understood

Under the Indian Electricity Act I must inspect this plant to see that it complies with the Indian Electricity Rules but there is no necessity for me to comment on the engineering details. If Government express their satisfaction with the present supervision of this electrical plant I will confine my comments in future only to points under the Act and Rules.

U O NO. 1096

E J B Greenwood
1-6-23

WS

Submit

With reference to para 4 of the in reply note above attention is invited to G.O. No 1146 W dated 27-9-18 wherein the Govt of India stated that the electrical installations in all government buildings whether Imperial or Provincial should be inspected from time to time by the El Inspector ~~appointed~~ The El. Inspector has now to make periodical inspections of Govt installations not only to see that the provisions of the Indian Electricity Act + the Rules thereunder are complied with, but also to see that the installations are maintained in good condition

Please see also GO No. 348 W & 24.3.23. The object of this order is to give a free hand to the Heads of depts to work out & execute ~~Electrical~~ schemes through any suitable agency, technical advice or assistance needed be them in the execution of works, obtained from the El. Engineer PWD.

The several points noticed by the El Inspr in his present inspection report would seem to show how necessary such inspection is & it seems such periodical inspections should continue to be made & all defects engineering or otherwise brought to notice. The only point in which there is an difference of opinion is between the El Inspector & the Supdt. Hiliparam jail is in regard to item (f) on p 3 of Plenty see the El Inspr's remarks against this item on p 3 cf. & the Supdt's remarks thereon on p 3 ante. The D.G. of Prisons agrees with the Supdt's & the 10th the S. dt. & the DG of Prisons are evidently non-technical officers & it is question whether the opinion of the technical officer should not prevail in this case. The point is for orders.

para - VIII - on p 4 ante with which the I.G. of Prisons agrees. 12 and The Supdt admits that they have no technical supervision but says "if the regular inspection by the Elec. Inspector "is going to cost us nothing I would strongly "recommend it as it would remove all "responsibility from the jail, but otherwise "I consider it unnecessary". This view cannot apparently, be accepted by Govt } NO
The inspection by a technical Officer like the El^c Inspector is quite necessary in the interests of Govt installations as stated in para 1 above, but such an inspection cannot absolve the jail authorities from responsibility for the proper maintenance of the installation which should be done in accordance with the advice given by the technical officers and the El^c Inspector. } PP 18/6/23
~~It seems that instructions for the above is agreed~~ accordingly may be issued If the above is agreed to the file may be sent to the Law (Gl) Dept with HS' further remarks, if any

SECRETARIAT
21-JUN-1923
PUBLIC WORKS DEPARTMENT

GOVERNMENT OF BOMBAY
PUBLIC WORKS DEPARTMENT

12.6.23

12/6 Law (Genl) No

PP 18/6

Law (Genl) Dept.

CND No 722 Ad/23-3
19-6-23

10.
2914

The P. W. D. agree with the Electrical

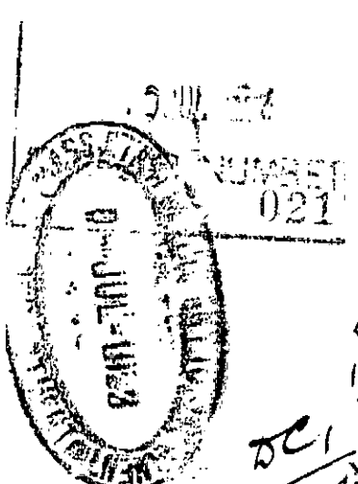
Inspector's remarks at page 3 c.f.r and they also consider that the electrical installation at Aliburam Jail should be inspected by the Electrical Inspector and that his advice and suggestions should be carried out. This department may agree with the remarks of the P.W.D and the case returned to P.W.D for issue of order.

28/6/23

28/6/23

I agree with the P.W.D note. Upon
Please let C.4 see.

7/7/23



DC 10/7/23

14.7.23 11/7 11/7

Yes in the interests of Govt that the El. Inspector should inspect the installation & give advice as to its maintenance.

20/7/23

approved. 22/7/23

25/7/23

US

The draft order may now be issued

Ads
26/7

Issue
MRR
27/7/73

From Cic
DS
Us.
26/7

Ads
26/7

A. / B. / N.P. (a)

W DEPARTMENT.

ORDINARY ~~ROUTINE~~ SERIES

† G.O. No. 743 W dated 2 7 7 1923

* CIRCULATED. 46 copies

~~NOT CIRCULATED~~

~~NOT~~ SEEN BY C.S.

Receipt numbers	
Number and date of previous proceedings.	

Tabling Abstract.

Electricity = Installation - Programme and Bellary — Personal inspection by the Secretary to Govt. ordered.